

EVERNOX®-10 EVERNOX®-10GF

Phenolic Primary Antioxidant for Manufacturing, Processing and Long-Term Thermal Stabilization

Chemical Name Pentaerythritol Tetrakis (3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate)

Structure

$$(CH_3)_3C$$

$$HO$$

$$CH_2CH_2COOCH_2$$

$$(CH_3)_3C$$

Molecular Weight 1178

CAS Number 6683-19-8

Specification <u>Criterion</u> <u>Requirement</u>

Appearance White, free-flowing powder for EVERNOX-10
White, free-flowing granules for EVERNOY 10Cl

White, free-flowing granules for EVERNOX-10GF

Ash content 0.1% max

Volatiles 0.5% max

Color of solution 40 APHA max

(10g in 100ml toluene)

Color of fusion 200 APHA max

Transmittance at 425 nm 97.0% min (10g in 100 ml toluene) at 500 nm 97.0% min

Assay 98.0% min

Physical Properties

Melting range ($^{\circ}$ C) 110-125 Flash point ($^{\circ}$ C) 297

Specific gravity (20° C) 1.15 g/cm³

Bulk density Powder: 530 - 630 g/l GF: 450-570 g/l

Solubility (20°C) g/100g solution

Acetone 46 55 Benzene Chloroform 71 Ethylacetate 47 n-Hexane 0.3 Methanol 0.9 Methylene Chloride 63 Toluene 60 Water < 0.01

Weight loss (TGA, in air at 20°C/min)

Temp.($^{\circ}$ C) at 1 % weight loss 310 Temp.($^{\circ}$ C) at 10 % weight loss 355

Applications

EVERNOX-10 and / or EVERNOX-10GF is a sterically hindered phenolic antioxidant with a highly effective, non-discoloring stabilizer for organic materials. It protects these materials against thermo-oxidative degradation. EVERNOX-10 can be applied in polyolefins, such as PE, PP and olefin copolymers like EVA. Also its use is recommended in various polymers such as POM, PA, PUR, PES, PBT, PET, PVC, styrenic like IPS, ABS, elastomers like SBS, SEBS, EPM and EPDM as well as synthetic rubbers, adhesives tackifier and other organic substrates.

EVERNOX-10 has good compatibility, high resistance to extraction and low volatility, odorless. It can be used in combination with other additives like costabilizers (e.g. thioesters, phosphites, phosphonites), light stabilizer and other functional stabilizers. The synergistic blends of EVERNOX-10 with EVERFOS-168 are extreme performance in polymers stabilization.

Handling & Safety

EVERNOX-10 and EVERNOX-10GF should be handled with care and prevent contamination of the environment. Avoid dust formation and ignition sources.

For more detailed information please refer to the material safety data sheet.

Packing

The following packages are available upon customer's request:

- (1) 20 kgs paper bag.
- (2) 25 kgs \times 2 PE bag in the carton box.
- (3) 50 kgs fiber drum.
- (4) Other specific request.

Transportation

EVERNOX-10 and EVERNOX-10GF are not dangerous materials according to the transportation regulations.

Storage

EVERNOX-10 and EVERNOX-10GF be stored under suitable conditions (dry & cool).

Maximum recommended storage time from the date of analysis: 60 months.



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